PREFACE

The present research work compares various methods for estimating probability of developing cancers on breast, cervix uteri, ovary and corpus uteri cancers in Thiruvananthapuram Taluk, estimates the burden of these cancers in terms of Disability Adjusted Life Years (or DALY), compares DALY according to various social value choices and compares various analytic approaches for estimating trends in incidence rates of cancers.

The thesis is organized into 7 chapters. Chapter 1 consists of introduction of the work with specific objectives and a brief summary of the thesis. In chapter 2, methods to estimate cancer incidence or mortality rates, analytical approaches used for estimating time trends in incidence or mortality rates of cancer, methods such as age-conditional probability and cumulative risk to estimate probability of developing or dying due to cancer, either over a lifetime or over a specified number of years and methods for estimating the burden of cancer in terms of disability-adjusted life years are provided. The data sources used for illustrating the various above methods are provided in chapter 3.

In chapter 4, various analytical approaches employed to estimate trends in incidence rates of cancer are provided. Breast, cervix uteri, ovary and corpus uteri cancer cases reported in Thiruvananthapuram cancer registry. In chapter 5, methods such as age-conditional probability and cumulative risk to estimate the probability of developing or dying from cancer over a lifetime are provided. The probabilities estimated using age-conditional probability and cumulative risk methods for developing and dying due to the four cancers are provided.

In chapter 6, the methods for estimating burden of breast, cervix uteri, ovary, corpus uteri cancers in Thiruvananthapuram using disability-adjusted life year (DALY) method are provided. Burden of the above cancers estimated using the Thiruvananthapuram Cancer Registry data are compared according to different social value choices. Projection of breast, cervix uteri, ovary and corpus uteri cancers in Thiruvananthapuram and Kerala till 2026 are provided. Chapter 7 includes summary and conclusion.

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